HepMC mini-workshop
Introduction

Witek Pokorski

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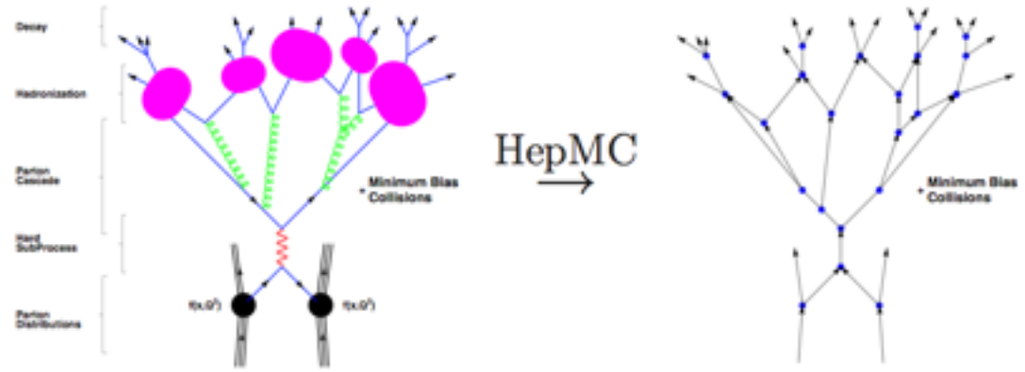
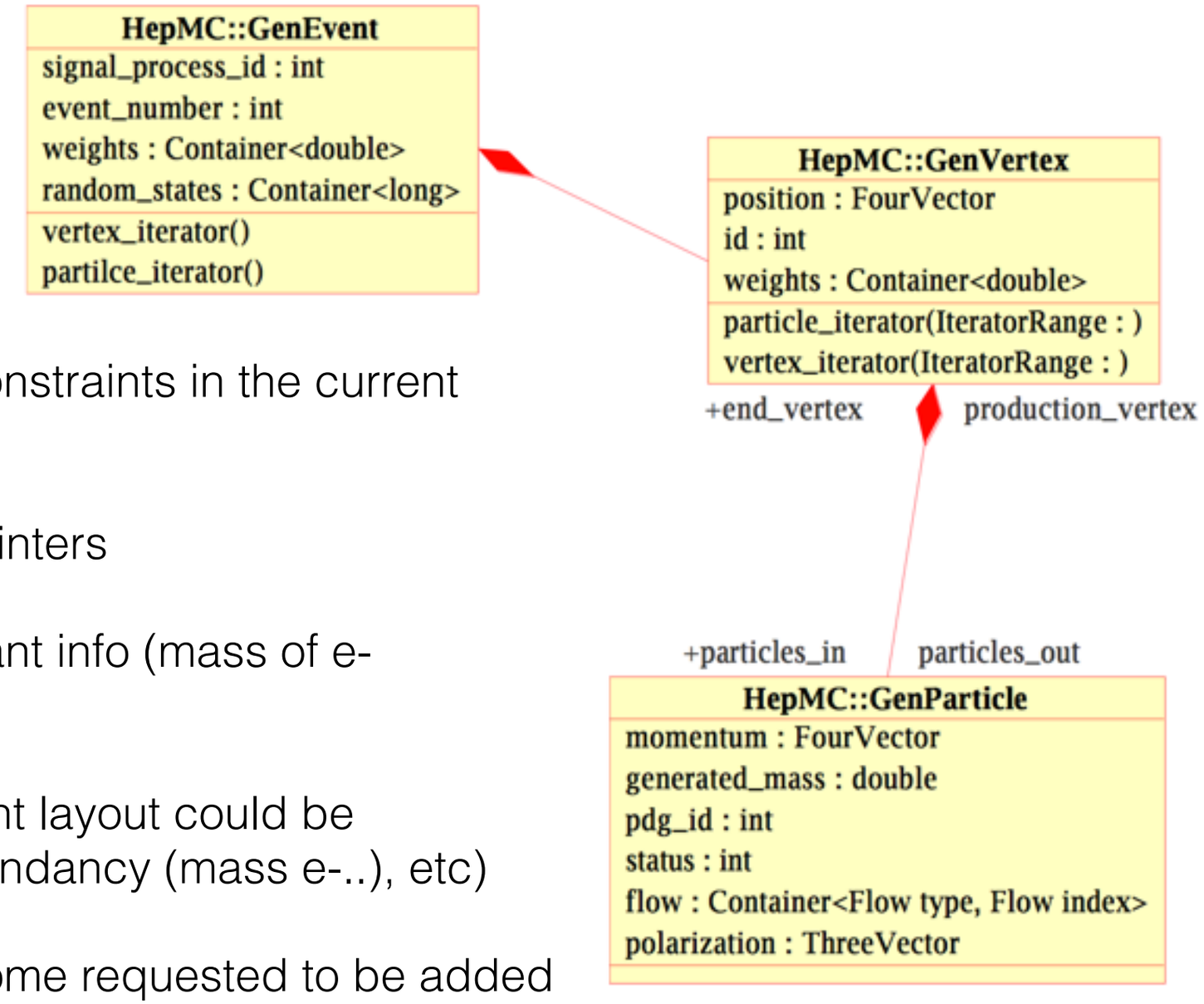
Motivation



- HepMC has become a ‘de facto’ standard event record used in HEP
  - majority of MC generators can produce (directly or through some interfaces) output in HepMC
  - tools exist (Rivet, HepMC Analysis tool, experiments tools) to analyse HepMC events
    - allows cross-generator validation and analysis
  - used by LHC experiments to interface between MC generators and detector simulation
- common discussion needed on the future of HepMC

Design (shortcomings)



- HepMC code is now 12 years old
- some design choices introducing constraints in the current usage of HepMC
  - ROOT I/O non-optimal due to pointers
  - ASCII I/O too big due to redundant info (mass of e- repeated everywhere, etc)
- many parts of the code and the event layout could be optimised (better iterators, less redundancy (mass e-..), etc)
- some members may be obsolete, some requested to be added

Goal of the workshop

- review the current status and discuss the future of HepMC

- establish new development model allowing better response to the requests but ALSO guaranteeing stability of the format

- draft the plan for new releases in accordance to experiments schedule

My wish list…

- identify a group of people, representing all experiments and MC generators authors that would collect and approve requests concerning the HepMC format

- identify a group of new developers that would implement that

- draft a plan of minor releases for HepMC 2

- start work on HepMC 3 (complete re-write) to be ready by summer 2014

Conclusion

- we would like to move to new way of HepMC development
  - more community-driven
  - more open to external contributions
  - controlled and approved by all the stakeholders
- mini-workshop to start this new form
  - working meetings regularly (once per month?) afterwards
- aiming for new major release (HepMC 3.00.00) by summer 2014